



Case Study: Veldman Farm Erosion Control



The grassed waterway during dry conditions.



Dan Veldman took over the Oxford County family farm 25 years ago. He is a second generation farmer, bringing up a third generation. The Veldman family runs a poultry operation and farm with 1,800 to 2,000 acres on a corn, soybean, wheat rotation.

Concerns:

As a teenager farming with his father, Dan noticed the soil was eroding from the rolling lands they were cropping. He became concerned with the loss of topsoil as well as how polluted runoff was affecting water quality downstream.

Solution:

Dan and his father constructed erosion control structures on their own to try to limit soil loss. After these structures proved ineffective due to improper design, Dan contacted the Upper Thames River Conservation Authority (UTRCA) for assistance. The UTRCA determined the correct size of berm, basin and drainage tile needed to design effective erosion control structures for the watershed of the fields. Over the past 20 years, Dan has implemented berms and grassed waterways on his field and estimates that erosion is now 95% under control.

Benefits:

The biggest benefit Dan has noticed with the erosion control structures is that topsoil is staying where it should be. Farming for the next generation has always been a focus of the Veldman farm operation and these erosion control structures are helping to leave high quality productive land for the future.

“You can’t always put [the cost of erosion control] into a monetary value for the day. You’ve got to be looking toward the future. So it all becomes about sustainability and leaving resources for the next generation.” Dan Veldman



One of the erosion control berms constructed on Dan's fields.



The grassed waterway conveying stormwater over the field and to an outlet.

Maintenance:

After two berms suffered damage from an intense rainstorm, Dan ensured that they were properly repaired so the berms would be functional in the next rainstorm. Clay was placed back in the base, covered in topsoil, and then planted with grass. Dan also ensures appropriate farm management around the berms and grassed waterway to keep them functioning well.

“Sustainability is pushed at school as well as the general health of the ecosystem. You need to look at the big picture and not just focus on your farm.” Kayla Veldman, Dan’s daughter, 3rd year crop science student



After early attempts to build structures on his own, Dan has learned that proper construction is essential in order to obtain effective erosion control.

Advice:

Dan advises having an engineer design the erosion control structures to ensure effectiveness and to meet long term erosion control goals.

Additional BMPs:

Dan has long-used the traditional cover crop of clover, but has recently started experimenting with multi-species cover crops to improve soil structure and add organic matter.